

**REMARKS**

The present response is intended to be a full and complete response to the Office Action mailed December 3, 2009. Claims 13 to 20, and 22 are pending in the present application. With this amendment, claim 21 has been cancelled without prejudice.

Applicants note with appreciation that claim 22 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claim. Claim 22 had been amended accordingly in the previous response.

Applicants respectfully request continued examination of Claims 13 to 22 and allowance of all pending claims.

**Claim Rejections Under 35 U.S.C. § 102:**

Claims 13 – 19, and 21 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Barchas et al. '481. This rejection is respectfully traversed.

Applicants note that Examiner's argument about the respective pressure drops through the first and last sets of coolers does not rely exclusively on details retrieved directly from Barchas et al. '481. Nowhere in Barchas et al. '481 does it state what the pressure drop is through any of the intercoolers. The skilled artisan will recognize that this is a design choice, and there are many possible options.

The Examiner argues that the fluid is a heavy hydrocarbon which is not precisely correct. The Examiner is referring to highly compressed stream 47, for which, It is clearly stated in Barchas et al' 481 that only "some of the water vapor may also permeate the membrane in first membrane stage 40" (*column 5, lines 46 – 47*), with the remaining water vapor remaining in stream 47, and heading into the coolers.

Clearly the stream that is going through the coolers in question (48, 50, and 52) contain a heavy hydrocarbon (hence the removal system downstream), but it also contains hydrogen and water. One skilled in the art would recognize that at 450 – 650 psi any water vapor present would have a saturation temperature of 456 – 493 F. The skilled artisan would realize that as it passed through a cooler that cools the entire stream down to 80 – 120 F, virtually all of the water vapor in the stream would condense, hence the knock out drum and the dryer. Anyone with experience with a low temperature separation system (that operates as low as -250 F as this system does) would realize that the knock out drum and the dryer are standard features to remove any water that will freeze up within the low temperature unit.

The skilled artisan would also recognize that as a practical consideration, the designer of this system would not go to the cost and expense of such an elaborate, multi-stage compressor with a complex inter-stage cooling system, in order to elevate the working pressure of the fluid to 450 – 650 psig, then squander this expensive and hard earned pressure by needlessly dispersing 50 psig (or more) through the somewhat pedestrian heat exchanger, which (being external to the compressor) may be as large and have as slight a pressure drop as necessary.

In summary, MPEP 2131 states that “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). And also that “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The instant claim 13, as currently amended, requires that “, the cooler having the lower pressure drop being upstream of that having the higher pressure drop”. Barchas et al’ 481 simply does not disclose these pressure drops, either expressly or inherently, in any fashion that the one skilled in the art would recognize. It is therefore entirely undisclosed what the pressure drops within each of

the identified coolers are, and hence the rejection is improper and should be vacated. As claims 14 – 20 are dependent up on claim 13, the rejection is improper with regard to them as well.

### CONCLUSION

In view of the above, Applicants maintain that Claims 13 to 20, and 22 are now in condition for allowance. Early notice to this effect is earnestly solicited. Should the Examiner believe a telephone call would expedite the prosecution of the present application, the Examiner is invited to call the undersigned attorney at the number listed below.

Applicants do not believe that any fee is due at this time. However, in the event that any additional fees are due, the Commissioner is authorized to debit deposit account number 01-1375 for the amount due. Also, the Commissioner is authorized to credit any overpayment with regard to the present response to deposit account number 01-1375.

Respectfully submitted,

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